

AN UNDESCRIBED SPECIES OF ROCK DWELLING
CRYPTOBLEPHARUS (LACERTILIA: SCINCIDAE)

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ABSTRACT

A new species of *Cryptoblepharus* (*C. fuhni*) is described from granite boulders of the Melville Range, near Cape Melville, northeastern Queensland, and is compared with its nearest relatives *C. virgatus* and *C. litoralis*.

The genus *Cryptoblepharus* Wiegmann was resurrected and redefined by Fuhn (1969a, b) to contain a single species, *C. boutonii* (Desjardin), and its twenty-one subspecies. These subspecies included *C. boutonii virgatus* which had been described as *Ablepharus virgatus* from Cooktown, north-eastern Queensland (Garman 1901). *Ablepharus boutonii litoralis* had been described from the Innisfail area by Mertens (1958). Cogger (1973, 1975) elevated it to specific status (*C. litoralis*) following Arnold's (1966) suggestion. Cogger has treated *virgatus* as a subspecies of *C. boutonii* noting that —'. . . some (subspecies) may represent distinct species while others may be minor variants . . .' (p. 258). Storr (1976) has treated *Ablepharus boutonii clarus* (Storr 1961) from south-western Western Australia as *Cryptoblepharus virgatus clarus*, considering *C. virgatus* from eastern Australia a distinct species because this form and the Mauritius *C. boutonii* (Desjardin) were unlikely to be conspecific, confirming Garman's original description of the species. In north-eastern Queensland, two species of *Cryptoblepharus*, *C. virgatus* and *C. litoralis*, are currently recognised.

In November 1970, one of us (JC) working with C. Tanner and T. Tebble observed a strikingly marked, dark *Cryptoblepharus* common on the black rocks of the exposed boulders of the Melville Range, Cape Melville, Cape York Peninsula, north-eastern Queensland. The lizards were very agile and alert and could be collected only with the aid of a pistol and dust shot.

A typical specimen of *C. virgatus* (QM J20565) was collected at the same time on a tree growing

amongst the boulders on which the dark *Cryptoblepharus* was common. The latter differs from both *C. virgatus* (with which it is synechronosympatric) and *C. litoralis* (which occurs only on the foreshore in north-eastern Queensland and New Guinea) meridially, and in colour, pattern, and external morphology. No other members of this genus have the striking achromatic pattern of *C. fuhni*. Differences observed are sufficiently distinct to warrant recognition of this skink as a new species, *C. fuhni*. *C. fuhni* is named to acknowledge the contribution to herpetology of Dr Ion Fuhn.

Cryptoblepharus fuhni

HOLOTYPE. QM J20566 Melville Range, Cape Melville, Cape York, NE.Q. (14°16'S, 144°30'E). Collected J. Covacevich, C. Tanner and T. Tebble, 30 Nov 1970.

PARATYPES. QM J20515-6, J20567-71, same data as holotype.

DIAGNOSIS

A long-legged, rock-dwelling *Cryptoblepharus* distinguished from all other species of *Cryptoblepharus* by its striking achromatic pattern of white spots and dashes on a black background (Fig. 1a). *C. fuhni* may be distinguished further from *C. virgatus* by midbody scale count (23-26 vs 20-23) and number of lamellae under the fourth toe (22-26 vs 19-22); and from *C. litoralis* usually by the number of lamellae under the fourth toe (22-26 vs 20-22). See fig. 1a, b, c and Table 1.

DISTRIBUTION

Known only from the granite boulder 'black' mountains of the Melville Range, Cape Melville, north-eastern Queensland.

DESCRIPTION OF HOLOTYPE

Snout-vent length (mm) 46.0. Head width (%SVL) 7.0. Hind limb length (%SVL) 25.0. Tail lost. No supranasals, but nasal scales divided.

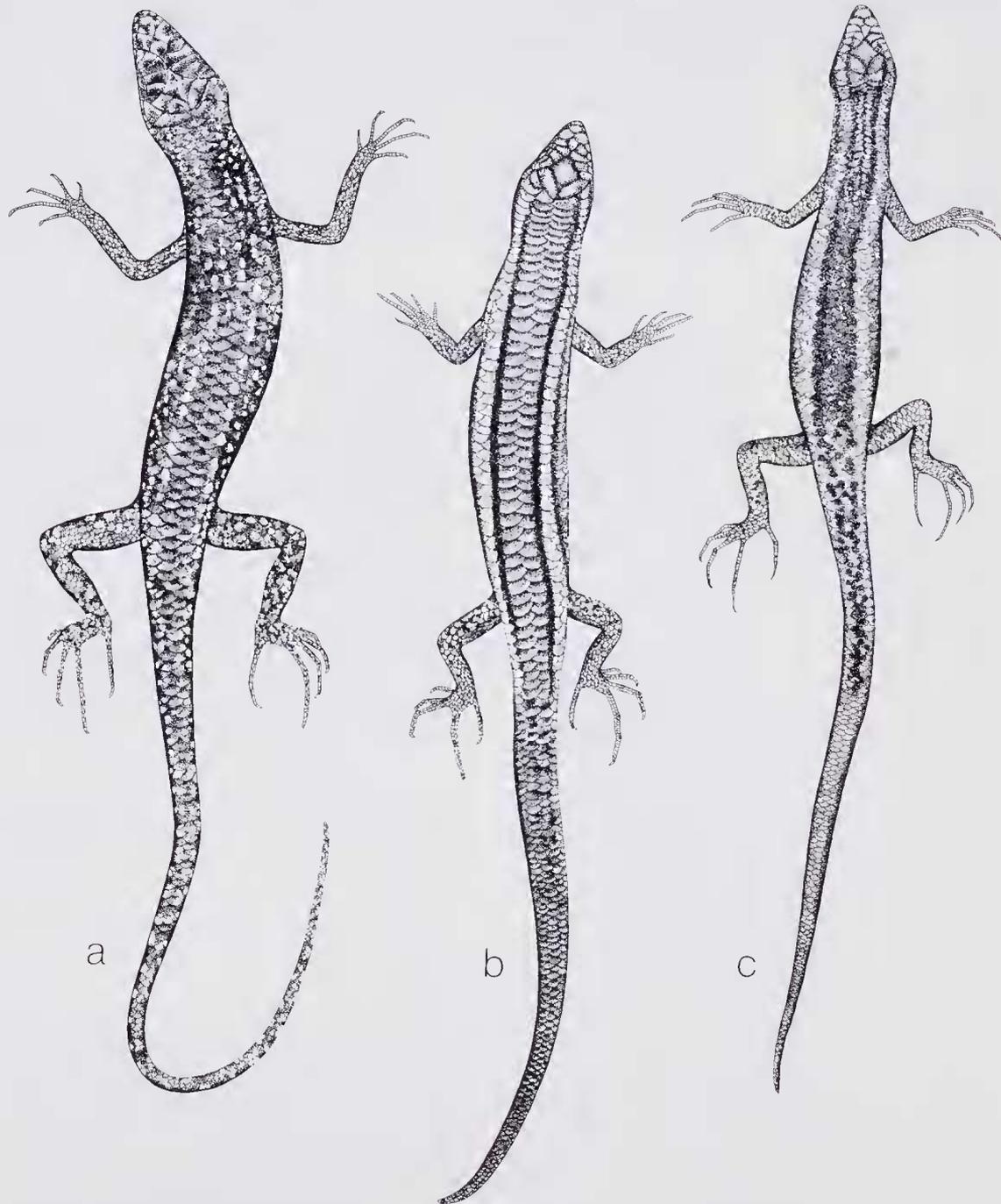


Fig. 1: A. *Cryptoblepharus fuhni* (J20569, on granite boulders, Melville Range, Cape Melville, NE.Q.)
 B. *Cryptoblepharus virgatus* (J20565, on tree, Melville Range, Cape Melville, NE.Q.)
 C. *Cryptoblepharus litoralis* (J20434, on granite boulders, Lizard Island, NE.Q.)

Rostral and frontonasal in broad contact. Prefrontals large, meeting with a medium suture, contacting the frontonasal, anterior and posterior loreals, first supraciliary, first supraocular and frontal. Anterior and posterior loreals large, subequal. Frontoparietals and interparietal fused, forming a large kite-shaped scale with a narrow anterior half. Parietals large, forming a medium suture along midline. Four large supraoculars, the second ones the largest which just touch in the midline. Supraciliaries five on each side, the first

the largest. Three enlarged upper ciliaries forming a hood over top of large transparent palpebral disc. The latter covers nearly all the eye. No moveable eyelids. Palpebral disc completely surrounded by three rows of small scales except for upper margin where there is only one row between disc and upper ciliary hood. Seven upper labials, fifth subocular. Six lower labials. Ear aperture obvious (0.6 mm wide), tympanum sunken, small rounded lobules around edge. Eight preanal scales, central pair enlarged. Limbs

TABLE 1: COMPARISON OF COLOUR, PATTERN, BODY PROPORTIONS, AND SCALE COUNTS OF *C. fuhni*, *C. virgatus* AND *C. litoralis*

Feature	Species		
	<i>C. fuhni</i> (fig. 1a)	<i>C. virgatus</i> (fig. 1b)	<i>C. litoralis</i> (fig. 1c)
colour and pattern	black basically with a striking pattern of white spots and dashes which vary in size and which form two paravertebral lines from neck to tail base; lamellae and palmar surfaces black.	brown basically with well defined white latero-dorsal lines from nostril to tail; two black paravertebral lines and a brownish vertebral line; head copper brown; laterally black with white speckling; lamellae and palmar surfaces white.	black basically with grey-green speckling and blotches which may form indistinct laterodorsal bands; white speckles present dorsally and laterally and on legs and tail; lamellae and palmar surfaces black.
hind leg length % SVL	minimum 51.4	maximum 43.8	maximum 48.4, 39.02 (Mertens, 1958)
mean head % SVL	14.2	13.8	13.2
mid body scale rows	23-26	usually 20-23, 20 (Garman, 1901)	23-28, 24-28 (Mertens, 1958)
lamellae under 4th toe	22-26	19-22	20-22, 18 (Range not described by Mertens 1958)

pentadactyl, well developed and greatly overlapping when adpressed. Toes long. Subdigital lamellae black, undivided and smooth, 24 under fourth toe. Palmar tubercles black and rounded. Midbody scales in 24 rows. Dorsal, lateral and ventral scales smooth; dorsals larger than ventrals which are larger than laterals. Colour in preservative, a contrasting achromatic pattern of white spotting and dashes on a black ground colour. Head black with brownish white speckling, labials flecked with larger speckles. Dorsal surface of neck, trunk and tail black with a series of spots and large dashes forming dorsolateral lines beginning at back of eye and continuing down tail; also two series of smaller dashes forming two paravertebral lines from neck to base of tail. Lateral surface of neck and trunk, black with a series of small spots and dashes forming parallel lines; these become a series of large dots down tail. Dorsal and lateral surfaces of legs and toes black with crossing barrings of white dots. Ventral surface cream, except for hands and feet which are black.

DESCRIPTION OF PARATYPES

As for the holotype except as follows:

Snout-vent length (mm): 35-47 (N = 7, \bar{x} 40.6, SD 4.58). HW (%SVL): 13.5-15.6 (N = 5, \bar{x} 14.2, SD 0.88). Length of hind limb (%SVL): 51.4-57.5 (N = 7, \bar{x} 54.2, SD 2.07) tail length (%SVL): 158 (N = 1). Midbody scale rows 23-26 (N = 7, \bar{x} 24.1, SD 1.46). In three of the paratypes the frontal narrowly contacts the fused interparietal-frontoparietals but in J20569 the second supraoculars form a short suture in the midline. In the smaller paratypes there is a tendency for the dorsolateral dashes to join to form lines, and for the head and lateral surfaces to be suffused with brown.

COMPARISON WITH OTHER CLOSELY RELATED SPECIES *

C. fuhni may be distinguished from *C. virgatus* and *C. litoralis* by colour, pattern, body proportions and external features. These features are summarised in Table 1.

REMARKS

Description of *C. fuhni* brings the number of known lygosomid skinks restricted to bare boulder habitats to six in Queensland. These are *Carlia coensis* (Mitchell), *C. mundivensis* (Broom), *Carlia* spp. nov. (two species, Ingram

*based on ten specimens of *C. virgatus* and *C. litoralis* (including topotypes) from the Queensland Museum reference collection and on the type descriptions of these two species.

and Covaccovich, pers. observ.), *Lampropholis* sp. nov. (Rawlinson, pers. comm.) and *Cryptoblepharus litoralis*. These lygosomid skinks share most of the following characters when considered in relation to their congeners: high number of midbody scales; large size; black or near black colour, often with whitish dashes or flecks; habit dorsoventrally flattened; prominent eyes; large supraoculars; long limbs and digits; high lamellae count for fourth toe; black palms and lamellae; agility and fast movement. All species are posturing heliotherms (*sensu* Rawlinson, 1974). They do not emerge from crevices and caverns until ambient temperatures are high (usually between 9-10 am) and they thermoregulate by changing body posture while resting on exposed basking sites. They forage in the sunlight and when temperatures are too high (towards noon), basking ceases and foraging may be continued in shaded areas. During the hottest part of the day skinks are usually inactive, sheltering until late afternoon when a brief search for food is usually resumed.

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